IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	:	**PATENT APPLICATION**
	:	
	:	COMMUNICATION NETWORK
Ralf Neuhaus et al.	:	COMPRISING COMMUNICATION
	:	COMPONENTS HAVING CLIENT AND
Application No.: 10/520,681	:	SERVER FUNCTIONALITIES AND
	:	SEARCH FUNCTIONS
Filed: January 7, 2005	:	
	:	Group Art Unit: 2449
Confirmation No.: 5198	:	
	:	Examiner: Ashok B. Patel

APPLICANTS' REPLY BRIEF

Pittsburgh, Pennsylvania 15219
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Bryan H. Opalko, *Reg. No. 40,751*
Lynn J. Alstadt, *Reg. No. 29,362*
BUCHANAN INGERSOLL & ROONEY PC
One Oxford Centre, 20th Floor
301 Grant Street
Pittsburgh, Pennsylvania 15219-1410
Phone: 412-562-1893
Fax: 412-562-1041
e-mail: bryan.opalko@bipc.com
Attorneys for Applicant(s)

Applicants hereby respond to the Examiner's Answer, dated November 16, 2010, as set forth below.

Claims 8-9, 14-18, 22-25, 28-29 and 31-32 Are Allowable Over Traversat and Periasamy

The Examiner's Answer reiterates many of the rejections previously made in the Final Office Action dated February 18, 2010 and the Advisory Action dated May 7, 2010. However, all of these rejections fail to articulate where in the cited Traversat and Periasamy references the specific claim limitations can be found.

Independent claim 8 recites, *inter alia*:

> *wherein each of the communication components searches for neighboring ones of the communication components and creates a servant list of the neighboring communication components; and*
>
> *wherein each of the communication components maintains the current utilization level of each server functionality of the neighboring communication components in the servant list by performing a repeating search at timed intervals.*

Similarly, independent claim 16 recites, *inter alia*:

> *wherein each of the communication components searches for neighboring ones of the communication components and creates a servant list of the neighboring communication components; and*
>
> *wherein each of the communication components maintains the current utilization level of each server functionality of the neighboring communication components in the servant list by performing a repeating search at timed intervals."*

It is clear from the above claim recitations that both independent claims 8 and 16 require that each of the communication components:

1.   *Searches for neighboring ones of the communication components;*

2.   *Creates a servant list of the neighboring communication components; and*

3.   *Maintains the current utilization level of each server functionality of the neighboring communication components in the servant list by performing a repeated search at timed intervals.*

Neither Traversat nor Periasamy, taken alone or in combination, disclose or suggest these claimed limitations. The Examiner's Answer does not point to where in Traversat and/or Periasamy these claim limitations can be found.

On pages 21-28 of the Examiner's Answer, and again at pages 36-42, the Examiner makes the same arguments regarding the teachings of Traversat and Periasamy with respect to the above-identified claim limitations. However, as with the Final Office Action and Advisory Action, all of these passages of Traversat and Periasamy recite very generic and vague functionality present in general peer-to-peer file sharing networks and in no way disclose or suggest the claimed limitations.

Paragraphs [0027] and [0090] of Traversat are cited for the proposition that peers, in a peer-to-peer network, include both client and server functionalities. Applicants do not contest that a communication component in a peer-to-peer network include both client and server functionalities. In fact, Applicants make note of this in the "Background of Invention" section in the present application. What both Traversat and Periasamy fail to disclose is the claimed system and method of communicating in such a network.

The Examiner has again cited the same paragraphs in Traversat and Periasamy that were previously cited. Each citation is listed below with Applicants' comments with respect to each provided thereafter.

- Peer monitoring 128 enables control of the behavior and activity of peers in a peer group and can be used to implement peer management functions including access control, priority setting, traffic metering, and bandwidth balancing. (Traversat, para. [0083]).

Applicants' Comments - This recitation merely sets forth that a form of monitoring, called peer monitoring, can be used to implement certain peer management functions. This is simply a vague and general teaching that peer monitoring can be used to implement peer management functions. There is no disclosure of what monitoring is done and how it is used to implement the peer management functions.

- Peer groups 122 may establish a set of peers and naming within a peer group with mechanisms to create policies for creation and deletion, membership, advertising and discovery of other peer groups and peer nodes, communication, security, and content sharing. (Traversat, para. [0083]).

Applicants' Comments - This recitation merely teaches the peer groups are set up and they may establish sets or peers, naming, and various policies for operation. There is no disclosure of how or what policies are created and how they are implemented. Further, paragraph [0083] of Traversat teaches that it is the core layer 120 that provides the core support for the various peer-to-peer services and applications.

- Peers may publish and provide network resources (e.g. CUP, storage and routing resources) that may be used by other peers. Peers typically interact with a small number of other peers (network neighbors or buddy peers). ... A peer may optionally cache information. (Traversat, para. [0114]).

Applicants' Comments - This recitation merely generally discloses that a peer can publish resources for other peers to use. However, these are published on a platform for other peers to share. A peer interacting with another peer and caching information is just general functionality associated with a peer. There is no disclosure of how a peer decides what peer to interact with or what information is cached.

- Peer groups may also create a monitoring environment. Peer groups may permit peers to monitor a set of peers for any special purpose (heartbeat, traffic introspection, accountability, etc.). (Traversat, para. [0128]).

Applicant's Comments - This recitation simply discloses that peers can monitor other peers. It is devoid of how a peer decides what peers to monitor, or how the monitoring takes place.

- Peer monitoring may include the capability to closely keep track of a (local or remote) peer's status, to control the behavior of a peer, and to respond to actions on the part of a peer. ... For example, a failure in the peer system is preferably detected as soon as possible so that corrective action can be taken. It may be

preferable to shut down an erratic peer and transfer is responsibilities to another

peer. (Traversat, para. [0478]).

Applicants' Comments - This is a general disclosure that peers can be monitored. It

is devoid of how a peer chooses another peer to monitor or what, if any, information

is stored or how that stored information is used by the peer or other peers.

- Peer metering may include the capability to accurately account for a peer's

  activities, in particular its usage of valuable resources. ... Even for providers

  offering flat rate services, it is to their advantage to be able to collect data and

  analyze usage patterns in order to be convinced that a flat rate structure is

  sustainable and profitable. (Traversat, para. [0479]).

Applicants' Comments - This is simply general disclosure that usage of a peer may

be monitored. There is no disclosure of whom or what is doing the monitoring.

Presumably, it is the peer monitoring component 128, which is included within the

P2P platform core layer 120, as shown in Fig. 2 of Traversat. Thus, Traversat teaches

providing an additional component or layer to monitor the peers.

- In one embodiment, the peer-to-peer platform may provide monitoring and

  metering through the peer information protocol, where a peer can query another

  peer for data such as up time and amount of data handled. (Traversat, para.

  [0480]).

Applicants' Comments - The recitation discloses that monitoring and metering are

provided via a platform which includes a peer information protocol. This is a general

peer-to-peer network where platforms are provided for file sharing, monitoring, etc. This is distinctly different from a communications component creating a servant list of neighboring communication components and maintaining the current utilization level of server functionality for the neighboring communication components in the servant list.

- Peer groups may be formed and self organized based upon the mutual interest of peers. (Traversat, para. [0124]).

Applicants' Comments - This recitation simply discloses the formation of peer groups, which is not pertinent to the presently claimed invention.

- Peer group boundaries may define the search scope when searching for a group's content. (Traversat, para. [0125]).

Applicants' Comments - This is a general disclosure peer group boundaries being used. There is no description of what the boundary is, how it defines a search, and who or what does the searching.

- Peer groups may also be formed based upon the proximity of the member peers. Proximity-based peer groups may serve to subdivide the network into abstract regions. (Traversat, para. [0126]).

Applicants' Comments - Again, this recitation simply discloses the formation of peer groups, which is not pertinent to the presently claimed invention.

- Peer groups may provide a secure cooperative environment. Peer group
  boundaries permit member peers to access and publish protected contents. Peer
  groups form virtual secure regions which boundaries limit access to the peer
  group resources. (Traversat, para. [0127]).

Applicants' Comments - This is a general disclosure of a peer group boundary and
the use of peer group resources by a peer group. The peer group resources are stored
on a platform for the peers to share. This is not pertinent to the presently claimed
invention, which is not directed to the formation of peer groups.

- The Examiner's Answer then cited col. 9, lines 27-54 of Periasamy as teaching the
  evaluation of cost data in order to select the proper local peers.

Applicants' Comments - In Periasamy, each local peer provides to the remote peer
the cost to use that particular peer. However, Periasamy is devoid of any suggestion
of searching for neighboring communication components, creating servant lists of the
neighboring communication components, and maintaining the current utilization level
of each server functionality for each neighboring communication component in the
servant list by performing repeated searching at timed intervals. Thus, any
combination of Periasamy with Traversat would not arrive at the presently claimed
invention.

All of the above recitations recite generic functionality and minimum primitives of peer

groups common to peer-to-peer networking, as well as how the peer groups generally operate

within the peer-to-peer network of Traversat. For example, Traversat confirms that peer

monitoring 128 is simply a minimal primitive common to peer-to-peer networking in paragraph

[0079], which states:

> In one embodiment, the peer-to-peer platform may include a core
> layer 120 that defines and encapsulates minimum primitives that
> are common to peer-to-peer networking, including, but not limited
> to, peers 110, peer groups 122, peer discovery 124, peer
> communication (e.g. pipes) 126, peer monitoring 128, and
> associated security primitives 130.

While <u>Traversat</u> may disclose basic functionality of the peer monitoring 128 primitive, it

is devoid of any teaching or suggestion of how the peer monitoring 128 primitive performs any

functionality to accomplish the basic disclosed tasks.

It is clear from the above recitations of <u>Traversat</u> and <u>Periasamy</u> that neither reference

discloses or suggests that claimed limitations of:

1. ***Searching for neighboring ones of the communication components;***

2. ***Creating a servant list of the neighboring communication components; and***

3. ***Maintaining the current utilization level of each server functionality of the***

   neighboring communication components in the servant list by performing a

   repeated search at timed intervals.

As is clear from the above recitations, there is no disclosure in either reference of creating

the recited "servant list" which includes the current utilization level of the neighboring

communication components. There is also no disclosure in either reference of maintaining the

servant list by performing repeated searching at timed intervals, as recited in the claims. There is

additionally no disclosure in either reference of the recited searching for neighboring

communication components, however that limitation is understood.

While Applicants disagree with the Examiner's interpretation of "neighboring communication component", as set forth above, the patentability of the pending claims does not hinge on that interpretation. However, as used in the present application, the term "neighboring communication component" is a component that is connected directly to another component. This is illustrated in the Figure of the present application and described in the specification. While the Examiner alleges to have found a discrepancy at paragraph [0034] of the published application, this particular description is not when a search is performed but, rather, when the component A2 is forwarding a search for a gateway carried out by component A3. The search carried out by component was sent to the "neighboring communication components" (A1 and A2), as they are connected directly to component A3.

Accordingly, for at least those reasons articulated above and in Applicants' Appeal Brief, independent claims 8 and 16 are believed allowable over Traversat and Periasamy, taken alone or in combination.

Dependent claims 9, 14-15, 28-29 and 17-18, 22-25, 31-32 depend cognately from independent claims 8 and 16, respectively, and also contain the limitations discussed above. For at least the above articulated reasons, these dependent claims are also believed allowable over the prior art.

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Conclusion

For at least the above reasons, reversal of the rejections of claims 8-9, 14-18, 22-25, 28-29 and 31-32 and allowance of these claims is respectfully requested.

Respectfully submitted,

/Bryan H. Opalko/

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Bryan H. Opalko, *Reg. No. 40,751*
Lynn J. Alstadt, *Reg. No. 29,362*
BUCHANAN INGERSOLL & ROONEY PC
One Oxford Centre, 20th Floor
301 Grant Street
Pittsburgh, Pennsylvania 15219-1410
Phone: 412-562-1893
Fax: 412-562-1041
e-mail: bryan.opalko@bipc.com
Attorneys for Applicant(s)